

# TURBO<sup>TM</sup> FORCE

## Instruction Manual

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# Limited Warranty

McO'RIVER, INC. ("Seller"), warrants only to the initial purchaser of its products that the items listed below are free from defects in material and workmanship under normal use and service for the warranty periods specified:

A. Printed Circuits Boards (90) days

No other parts of Seller's products are warranted.

Warranty periods are effective from the initial date of shipment from Seller to its authorized distributors.

Seller's sole liability shall be, at its option, to repair or replace products which are returned to Seller during the warranty periods specified, provided:

A. Seller is notified promptly upon discovery by buyer that stated products are defective.

B. Such products are properly packaged and then returned, prepaid to Seller's plant.

This warranty does not apply to any parts damaged during shipping or handling, or due to improper installation or usage, or alteration. In no event shall Seller be liable for any anticipated profits, loss of profits, loss of use, incidental or consequential damages or any other losses incurred by the customer in connection with the purchase of McO'RIVER, INC. product.

## (Warranty Disclaimer)

EXCEPT AS SPECIFICALLY PROVIDED IN A WRITTEN CONTRACT BETWEEN SELLER AND PURCHASER, THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

# General Information

## A) Contents of Kit:

Qty	Description
1	Turbo Force PCB
1	Turbo Force Control Panel Overlay
1	Turbo Force Marquee Plexi
1	Turbo Force Monitor Card
2	Turbo Force Side Decals
1	Standard JAMMA Harness
1	3rd Player Harness
3	8-way Joysticks
2	Red Push Buttons
2	Green Push Buttons
2	Blue Push Buttons
1	Decal Sheet (Game Play Instructions and Button Labels)
1	Manual
1	FCC Compliance Decal

## B) The Turbo Force is a vertical conversion kit.

Following are the electrical and mechanical specification required to install the Turbo Force kit:

**Monitor:** Vertical Mount, RGB, Negative Composite Sync.

**Control Panel:** Space for 3 joysticks, 3 play buttons, and 3 start buttons in 3 player version.  
2 joysticks, 2 play buttons, and 2 start buttons in 2 player versions.

**Power Supply:** +5VDC @ 3 Ampere and +12VDC @ 1 Ampere.

Please make sure all mechanical and electrical parts/components are functioning properly before installing this conversion kit.

## C) This conversion kit includes graphics and hardware necessary to convert multiplayer and over-sized video game cabinets.

\* To maximize income, a 3-player conversion of this game is recommended.

# Game Play

Turbo Force is a 2 player or 3 player (operator selectable by dip switch selection) vertical conversion kit. It is complete with graphics and hardware to convert most multi-player game cabinets.

Turbo Force is a futuristic space game.

## Game Play Techniques

After choosing your vehicle, you must steer it through many levels while destroying as many attackers as possible and finding energy capsules. Throughout, these levels you will encounter a variety of enemies including tanks, rocket launchers, robots, trains, and other characters. At the end of each level you will have to defeat the ultra opponents, until you reach the mega car.

Randomly appearing "Power Capsules" will increase your devastating firepower, while "Mystery Capsules" will provide you with "Mega Fire", or other attributes.

Occasionally during times of intense retaliation from the combined forces of the enemy, a "time rift" will occur, slowing down the game play allowing the player to better respond to the massive onslaught.

# Dip Switch Settings

## TURBO FORCE

### DIP SWITCH - 1

1	2	3	4	5	6	7	8		ITEM
*OFF	*OFF	*OFF						Coins (1,2,& 3)	1 Coin = 1 Credit
ON	OFF	OFF							2 Coins = 1 Credit
OFF	ON	OFF							3 Coins = 1 Credit
ON	ON	OFF							4 Coins = 1 Credit
OFF	OFF	ON							1 Coin = 2 Credits
ON	OFF	ON							1 Coin = 3 Credits
OFF	ON	ON							1 Coin = 5 Credits
ON	ON	ON							1 Coin = 6 Credits
			OFF *ON						CONTINUE COIN NORMAL CONTINUE
				OFF *ON					COIN SLOT SAME INDIVIDUAL
					OFF *ON				3 PLAYER OFF ON
						OFF *ON			SOUND ON OFF DEMO MODE ON
							*OFF ON		TEST MODE OFF ON

When DIP 4 is on, then "2 coins for start and 1 coin for continue".

### DIP SWITCH - 2

1	2	3	4	5	6	7	8	ITEM
*OFF ON								FLIP-FLOP
	OFF	OFF	OFF					EASY - 1
	ON	OFF	OFF					EASY - 2
	OFF	ON	OFF					EASY - 3
	*ON	*ON	*OFF					NORMAL - 4
	OFF	OFF	ON					NORMAL - 5
	ON	OFF	ON					NORMAL - 6
	OFF	ON	ON					HARD - 7
	ON	ON	ON					HARD - 8
				*OFF ON				PLAYERS LIFE - 3 Life
								PLAYERS LIFE - 2 Life
					*OFF ON			ADDITIONAL LIFE-After 200,000 Pts.
						*OFF		ADDITIONAL LIFE-After 300,000 Pts.
							*OFF	N.C.
								N.C.

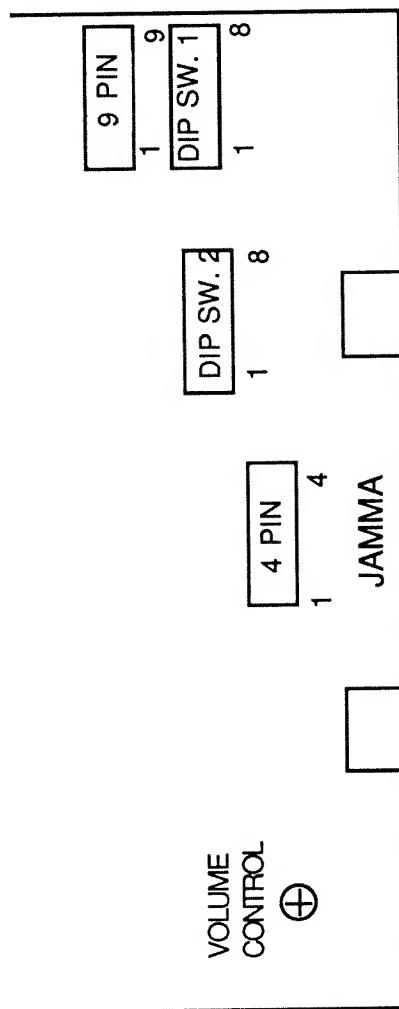
\* Indicates Factory Setting.

DIP SWITCH 7 & 8 Should be kept on "OFF".

# Diagram (A)

## MOLEX CONNECTOR FOR THIRD PLAYER

Pin Out	ACTION	COLOR WIRE	4 Pin Connector for Coin Switch/Counter
1 .....	3P UP .....	(YELLOW)	1 ... 12V ..... (YELLOW)
2 .....	3P DOWN .....	(GREEN)	2 ... COUNTER .. (BROWN)
3 .....	3P LEFT.....	(VIOLET)	3 ... COIN ..... (WHITE)
4 .....	3P RIGHT.....	(BLUE)	4 ... GROUND.... (BLACK
5 .....	3P PUSH 1 (FIRE) ...	(ORANGE)	
6 .....	3P PUSH 1 (N/C) ....	(RED)	
7 .....	3P PUSH 1 (N/C) ....	(BROWN)	
8 .....	3P START .....	(GREY)	
9 .....	GROUND .....	(BLACK)	



### INSTRUCTIONS FOR CONNECTING THIRD PLAYER:

Simply follow the above wiring instructions for connecting the 3rd player to the necessary joysticks, buttons, etc. Then insert harness end plug (A) to molex plug provided on the PCB (B).

# Connecting Diagram TURBO FORCE

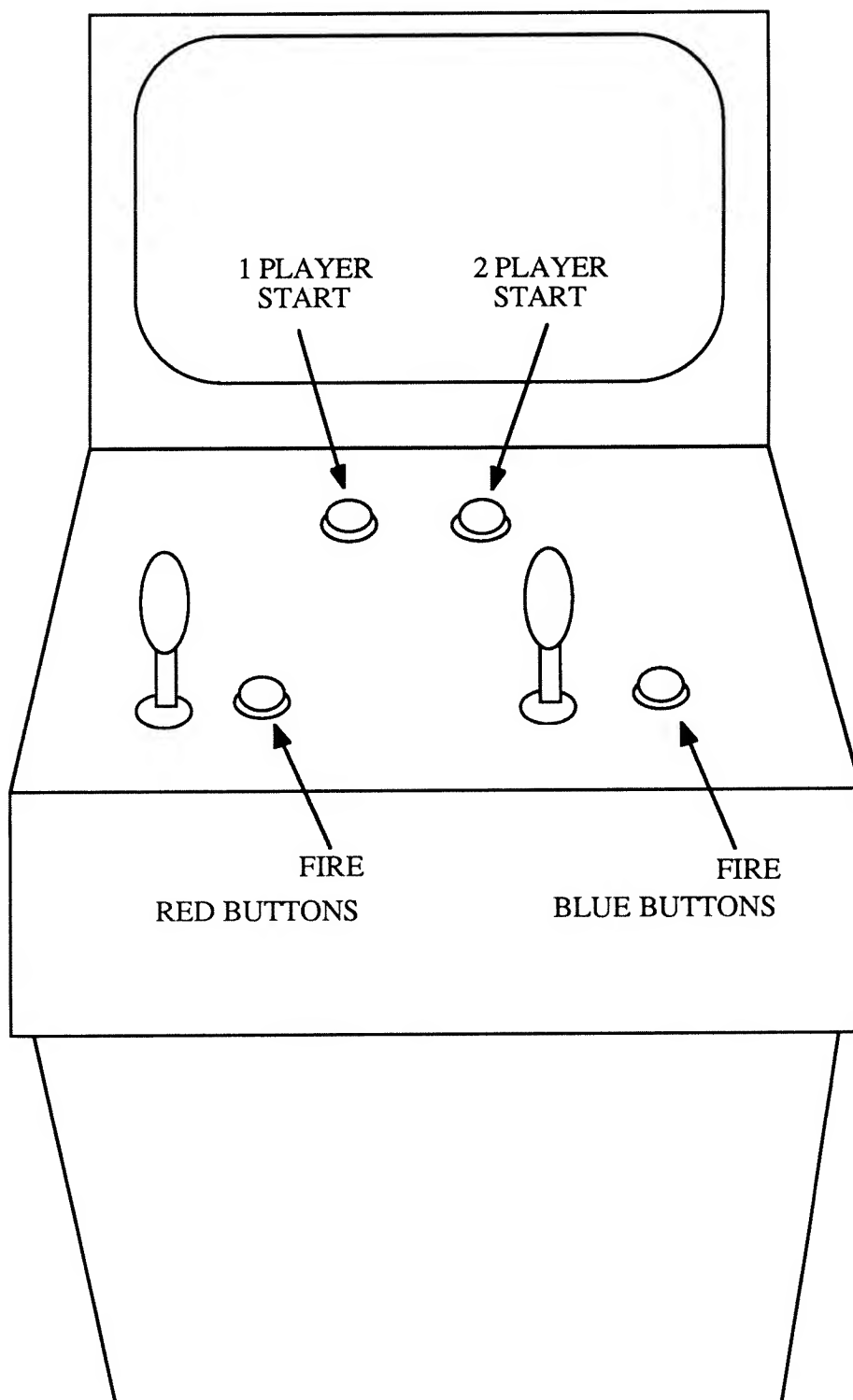
(JAMMA HARNESS)

SOLDER SIDE			PARTS SIDE
GND	A	1	GND
GND	B	2	GND
+5V	C	3	+5V
+5V	D	4	+5V
	E	5	
+12V	F	6	+12V
PROTECTION KEY	H	7	PROTECTION KEY
COIN COUNTER 2	J	8	COIN COUNTER 1
	K	9	
SPEAKER (-)	L	10	SPEAKER (+)
N/C	M	11	N/C
VIDEO GREEN	N	12	VIDEO RED
VIDEO SYNC	P	13	VIDEO BLUE
SERVICE SWITCH	R	14	VIDEO GROUND
N/C	S	15	N/C
COIN SWITCH 2	T	16	COIN SWITCH 1
START SWITCH 2	U	17	START SWITCH 1 3
2P CONTROL UP	V	18	1P CONTROL 1 UP 7
2P CONTROL DOWN	W	19	1P CONTROL 2 DOWN 6
2P CONTROL LEFT	X	20	1P CONTROL 3 LEFT 5
2P CONTROL RIGHT	Y	21	1P CONTROL 4 RIGHT 4
2P CONTROL FIRE	Z	22	1P CONTROL 5 FIRE 3
N/C	a	23	N/C
N/C	b	24	N/C
N/C	c	25	N/C
N/C	d	26	N/C
GND	e	27	GND
GND	f	28	GND



# 2-Player Control Panel Layout

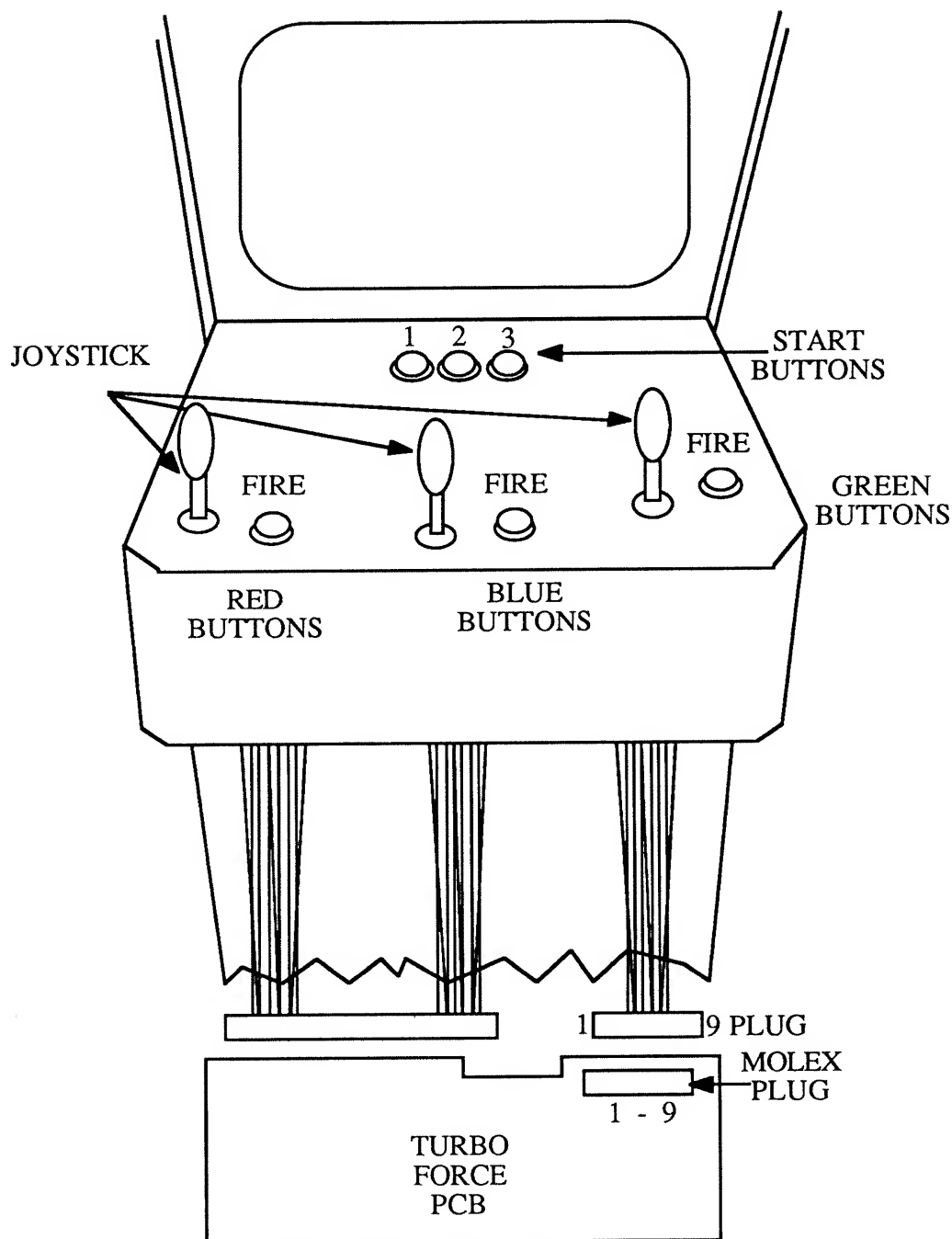
## TURBO FORCE



\* When making this 2 player conversion, only the standard JAMMA harness is necessary. Be certain to follow the connecting diagram carefully.  
GOOD LUCK.

# 3-Player Control Panel Layout

## TURBO FORCE



\* When making this 3 player conversion, you must use the 3rd player harness that has been supplied. Refer to earlier diagram (A) on page 7 for connecting information. Simply make all connections and plug harness into PCB.

Please refer to positioning of the color buttons as they refer to the colors of the characters in the game.  
GOOD LUCK.

# **FCC Label Requirement**

## **Dear Kit Purchaser:**

Enclosed in your kit is an FCC Compliance Label that you must place on the cabinet immediately after your conversion is complete and prior to placing the kit game on location. The FCC label indicates that the kit was manufactured to meet FCC standards.

The failure to display the FCC label is a violation of FCC 47 CFR 15.19 and could result in your being fined, up to \$2,000 per violation per day.

If you have any questions, contact your manufacturer.

### **WARNING**

**THIS GAME MUST BE GROUNDED, FAILURE TO DO SO MAY  
RESULT IN DESTRUCTION TO ELECTRONIC COMPONENTS.**

WARNING: This equipment generates, uses, and can radiate radio frequency energy and if not used in accordance with the instructions manual, may cause interference to radio communications. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

### **"WINNERS DON'T USE DRUGS" William S. Sessions, Director, FBI**

**\*IN COOPERATION WITH THE AAMA AND FBI ANTI-DRUG CAMPAIGN\***

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The game play, all graphic designs, this technical manual, its accompanying diagrams, and the display manual are protected by the law.

You may void the game warranty if you do any of the following:

- Substitute non-McO'RIVER, INC. electronic parts in the game.
- Modify or alter any circuits in the game by using kits or parts not supplied by McO'RIVER, INC..

## **NOTICE**

**TURBO FORCE has been shipped  
in a 3 player version as a factory setting.**

## **IMPORTANT!**

**For 2 player conversions, be certain  
to change dip switch setting as follows:**

**To make change, locate switch #6  
within dip switch bank #1 (2P setting)  
and flip to "off" position.**

***Mc O' RIVER Inc.***  
**A VIDEO SYSTEM COMPANY**